## **ABSTRACT**

The present invention provides a light guide plate for liquid crystal displays. The light guide plate is made from a cyclic olefin copolymer (COC) material, which is represented by the formula:

$$-\left(\text{CH}_{2}\text{--CH}\right)--\left(\text{CH-CH}\right)_{m}$$

wherein each of  $R_1$ ,  $R_2$  and  $R_3$  is independently selected from the groups consisting of hydrogen and aliphatic saturated groups, and m is an integer which is equal to or greater than 1. The COC material is an amorphous and transparent copolymer, and is synthesized by alpha-olefin monomers and cycloolefin monomers in a catalyst of metallocene or a catalyst of  $\pi$  complex compound.